

Serial No.: 10/553,860
Examiner: David J. Goodwin
Title: FIELD EFFECT TRANSISTOR, ELECTRICAL ELEMENT ARRAY, AND MANUFACTURING METHOD FOR THE SAME
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Amendments to the Claims:

This listing of claims will replace all prior versions, and listing, of claims in the application.

1-19. (Canceled)

20. (Currently amended) A method for manufacturing an electrical element array including n-type field effect transistors and p-type field effect transistors on a substrate, comprising the steps of:

forming a plurality of gate electrodes on a substrate;

forming a gate insulation layer on the gate electrodes;

forming a plurality of source electrodes and a plurality of drain electrodes on the gate insulation layer;

forming a plurality of p-type field effect transistors on the substrate by applying a p-type semiconductor layer comprising carbon nanotube on the gate insulation layer and between one of the source electrodes and one of the drain electrodes; and

forming a n-type modifying polymer layer only on the p-type semiconductor layer of a p-type field effect transistor that is included in the plurality of p-type field effect transistors and that ~~should~~ is predetermined to be converted into a n-type field effect transistor by dispensing in an ink-jet method, the n-type modifying polymer layer being for converting a polarity of the carbon nanotube from an original polarity of p-type into n-type and for stabilizing the polarity, whereby the p-type semiconductor layer of the p-type field effect transistor is converted into a n-type semiconductor layer so as to form p-type field effect transistors and n-type field effect transistors on the substrate.

21. (Previously presented) The method for manufacturing an electrical element array according to claim 20, wherein the n-type modifying polymer is a polymer containing imine nitrogen.

22. (Previously presented) The method for manufacturing an electrical element array

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according to claim 21, wherein the polymer containing imine nitrogen is polyalkylene imine.

23. (Previously presented) The method for manufacturing an electrical element array according to claim 22, wherein the polyalkylene imine is at least one selected from the group consisting of polyethylene imine, polypropylene imine and polybutylene imine.